USDA Foreign Agricultural Service
GAIN Report
Global Agricultural Information Network

Required Report - public distribution

Date: 6/1/2009
GAIN Report Number: AS9023

Australia

BIOFUELS ANNUAL

BIOFUELS ANNUAL 2009

Approved By:
Grant Pettrie, Agricultural Counselor
Prepared By:
Mike Darby, Agricultural Specialist

Report Highlights:
Biofuel production capacity is forecast to reach 365 ML in 2009/10, surpassing the Federal Government target of 350 ML. Improved feedstock supplies and lower costs are likely to offset lower retail fuel prices. However, a shortage of credit due to the financial crisis and the lack of new policies at the Federal government level are inhibiting further developments according to industry sources.

Post:
Canberra

Commodities:
select

Executive Summary:

1. Domestic Policy Environment

Energy Overview:

Australia's energy production continues to exceed its energy consumption making Australia a significant net energy exporter. For example, according to the Australian Bureau of Resource Economics (ABARE), Australian resources of uranium account for 38 percent of the world's uranium resources and Australia's brown coal resources represent around 24 percent of the world's brown coal resources.

In terms of energy sustainability, at current levels of production, Australia's reserves of brown coal, black coal and conventional gas are expected to last 500 years, 100 years and 60 years respectively.

Despite the energy surplus, Australia is a net importer of liquid hydrocarbons (including crude oil, liquid petroleum gas (LPG) and other refined and semi-refined petroleum products). Australian reserves of crude oil and condensate represent only a small proportion of total world reserves.

In 2009, Australia is forecast by ABARE to produce 27,906 ML (million liters) of crude oil and condensate, export about 17,188 ML and import 30,214 ML. Long term projections have production peaking at 29,011 ML in 2012, exports peaking at 17,987 ML in 2011 and imports peaking at 32,896 in 2012.

Production of biofuels in Australia received much media attention in 2007 and 2008. The primary driver in biofuel interest is energy prices. As energy prices have increased, so too has pressure on governments to find alternate energy sources. More recently however, interest in biofuels has subsided in line with reduced fuel prices.

A secondary driver for biofuels policy has been the debate over climate change. The occurrence of a severe and prolonged drought, the worst in over 100 years, has bought the climate change debate center stage. This, combined with a change of government at the federal level, is likely to see continued pressure to provide environmentally friendly policy decisions.

Despite the media attention and the prominence of the climate change debate, the current Government of Australia (GOA) has yet to send a clear signal regarding biofuel policy. At present, the industry continues to operate under the arrangements made by the previous government.

At a regional level within Australia, many ventures into biofuel production, using locally produced grain, have been proposed. However, extreme grain supply shortages together with a shortage of venture capital, due to the global financial crisis, have seen many domestic biofuel ventures either shelved or abandoned.

Despite the attention placed on biofuel production, the industry remains in its infancy. One report put biofuel production at about 0.5 percent of petrol (gasoline) consumption and about 1.0 percent of diesel consumption, although industry sources suggest these figures are too high.

a. Policies Supporting the Production and/or Use of Biofuels

The GOA has a broad range of policy instruments that affect the production of biofuels. These instruments include a production target, fuel taxes (excise), fuel quality standards, grants and labeling as reported in GAIN Report AS 7032.

In 2007, Australia elected a new Federal government. The new Labor government has not yet made any substantive policy changes in regards to biofuel. In a recent speech made to sugar cane producers the Minister for Agriculture stated that "how we deal with those policies is something that is still being worked through".

The GOA is due to release an "energy white paper" at the end of 2009 and as part of this process has released a "strategic directions paper". This paper makes no mention of biofuel, however consultation with biofuel industry stakeholders revealed an intent to make submissions to this process. Industry sources believe that any new biofuel policy announcement will likely be made following the release of the white paper.

Both ethanol and biodiesel are currently free from excise taxes, currently applied to diesel and petrol. This exemption is made in the form of "production grants" which effectively provide a subsidy at the same rate per liter of fuel as the excise that would be levied – A$0.381 per liter. This scheme is due to commence scaling down in 2011/12 when the effective assistance rate will fall to A$0.234 and will continue to fall through 2015/16.

Biofuels Excise Rates for Australia				
Fuel Type	**Ethanol**		**Biodiesel**	
	Excise Applied	Effective Relief	Excise Applied	Effective Relief
2005/06	0	38.1	0	38.1
2006/07	0	38.1	0	38.1
2007/08	0	38.1	0	38.1
2008/09	0	38.1	0	38.1
2009/10	0	38.1	0	38.1

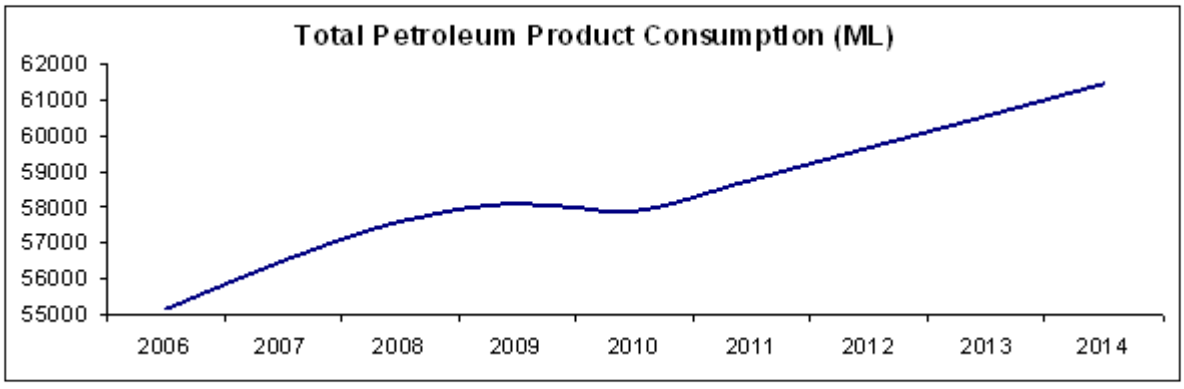
2010/11	0	38.1	0	38.1
2011/12	2.5	23.4	3.8	32.1
2012/13	5.0	20.9	7.6	28.3
2013/14	7.5	18.4	11.4	24.5
2014/15	10.0	15.9	15.3	20.6
2015/16	12.5	13.4	19.1	16.8
Source: ABARE				

At a state level, New South Wales increased its volumetric mandatory inclusion policy for ethanol to legislation. Under this legislation, by 2011, the inclusion level of ethanol in petrol will be ten percent. Industry sources believe that this will equate to roughly 120 ML of ethanol per year. This follows the volumetric mandated level of two percent implemented in 2007. Under this mandate, "each supplier of wholesale fuel for sale in NSW will be required to provide evidence on a quarterly basis from September that ethanol makes up at least 2 per cent of the total volume of petrol they sell in NSW".

The state of Queensland has committed to a mandate of volumetric inclusion of five percent by 2011. Victoria and Western Australia have a biofuel "target" of five percent by 2010. The states of Tasmania, South Australia and the Northern Territory remain uncommitted.

b. Size of Total Motor Vehicles Petroleum Based Energy Market

According to ABARE, total consumption of petroleum products for 2009 is estimated at 58,119 ML (million liters) and is projected to increase steadily to 61,463 ML in 2014. Automotive gasoline makes up about 55 percent of Australia's transport fuel demand while diesel represents about 45 percent. Liquid Petroleum Gas (LPG) is included in this petrol figure and represents about 8.4 percent of "non diesel" transport fuels.



Source: ABARE data

According to government reports, the demand for diesel has been growing at about three percent faster than automotive gasoline which has been growing at a rate of about 1.2

percent. Despite the growth in diesel fuel consumption, the overwhelming majority of new cars sold in Australia are run on automotive gasoline.

c. Biofuels Production Capacities, Current/Planned

Post estimates biofuels production capacity for 2008/09 at 255 ML, representing about 180 ML of ethanol and 75 ML of biodiesel. According to post's calculations, this would put biofuel production at about 0.4 percent of total liquid fuel consumption.

Post anticipates continued increases in ethanol production capacity while biodiesel is likely to remain unchanged in 2009/10, bringing total biofuel production to around 365 ML. If achieved, this level will have exceeded the GOA target of 350 ML. Post advises that many plants are currently operating below potential capacity making it difficult to forecast actual production. Furthermore, some plants have closed.

Many proposed biofuel projects have either been shelved or abandoned and the recent global financial crisis appears to have only exacerbated this situation. Industry sources currently report that the lack of strategic policy direction at the Federal level is also currently inhibiting investment in the biofuel industry.

Current ethanol production facilities (Million Liters – ML)	
Production facility/location	**Principle feedstocks**
Manildra Group – Nowra NSW	Waste wheat starch
CSR Distilleries – Sarina Qld	Molasses
Dalby Biorefinery	Grain
Source: ABARE, 2008	

Current and Proposed Biodiesel production capacity (Million Liters – ML)	
Biodiesel Capacity	**Principle Feedstock**
Biodiesel Ind – Rutherford NSW	Tallow and used cooking oil
Biodiesel Producers	Barnawatha
Smorgan Fuels – Laverton Vic	Tallow and used cooking oil
Eco-tech Biodiesel – Narangba Qld	Tallow and used cooking oil
Source: Post Estimate	

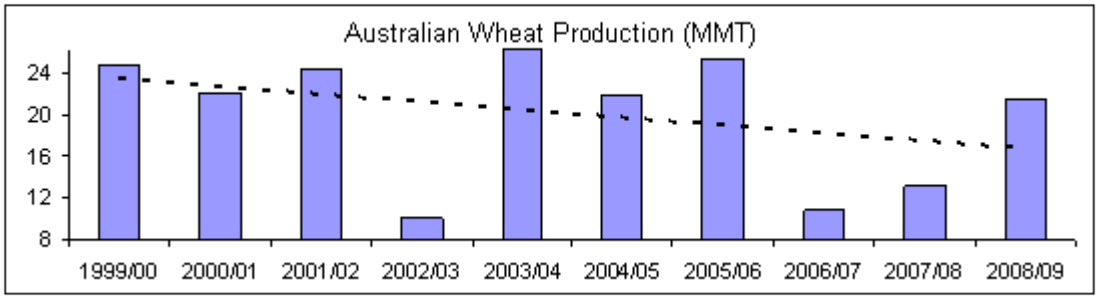
d. Feedstock Supply

Suitable feedstock supply for biofuel production, such as grain, reached historically low levels during the prolonged and severe drought which began in 2002. Post forecasts have production of winter cereals and sorghum returning to near average levels in 2009/10. Prices for these commodities will also likely remain at levels closer to the long term average, down from the

record highs of 2007/08. Increased production of grains and reductions in grain prices will likely benefit biofuel producers who rely on grain and grain derivatives for feedstock.

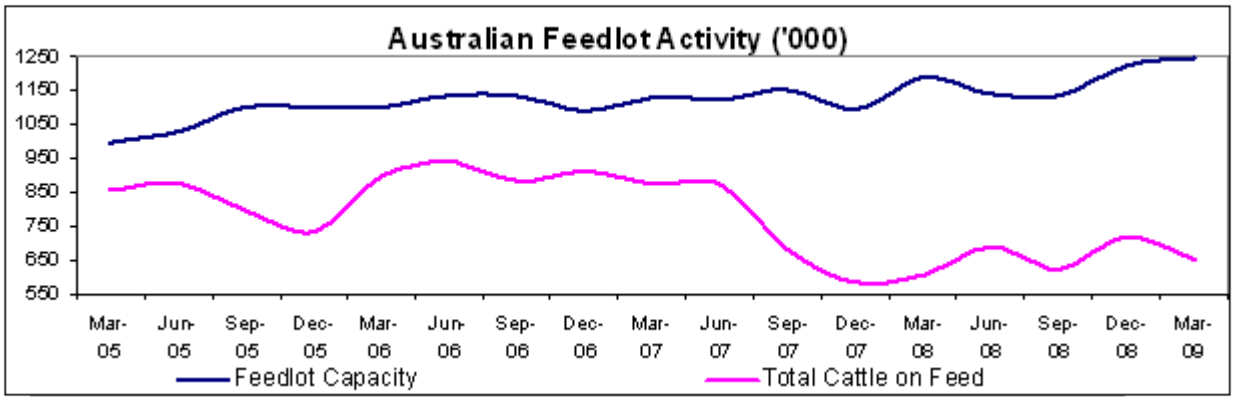
Production of other agricultural commodities such as sugar and molasses remain at around average levels; however competition and prices of these commodities have increased significantly – partly due to drought and partly due to increased demand. Supplies of by-products for biofuel such as tallow and other vegetable oils have reached record or near record levels.

Post advises that feedstock supply, particularly in terms of winter cereal grain and sorghum, is forecast to return to levels more reflective of the long term average in 2009/10. Due to severe and persistent drought conditions which began in 2002/03, grain inventories remain at levels well below the historical average. Inventories are expected to improve in 2009/10 although they will not likely exceed the long term average.



Source: ABARE data

The reduction in feedstock supply since 2002/03 and associated high feed grain prices has also constrained the production of other commodities. The Australian cattle lot feeding sector has also been greatly constrained by the lack of feed grain. Numbers of cattle on feed have declined sharply as feed grain inventories have dwindled. Biofuel manufacturers who rely on grain as feedstock experienced the same downward pressure.



The Australian lot feeding sector has made repeated statements regarding their opposition to the policy arrangements for producing biofuel in Australia. The core of their opposition relates to the perception that the "playing field just isn't level". Provision of capital grants, relief from fuel excise taxes and government ethanol mandates are believed to assist in distorting prices for feed grains, a vital input for Australian feedlots. The lot feeding sector has however, supported second generation research into producing biofuel from feedstocks other than grain.

2. Import Regimes for Biofuels

Australia has placed tariffs on imported ethanol, which can be imported below the cost of local production. The tariff rate, $A 0.38143 cents per liter is expected to reduce the competitiveness of imported fuel ethanol, particularly from Brazil. The production cost of Brazilian ethanol is reported to be well below the cost of production for Australian ethanol. However, according to industry sources a tariff on imported biodiesel has not been applied.

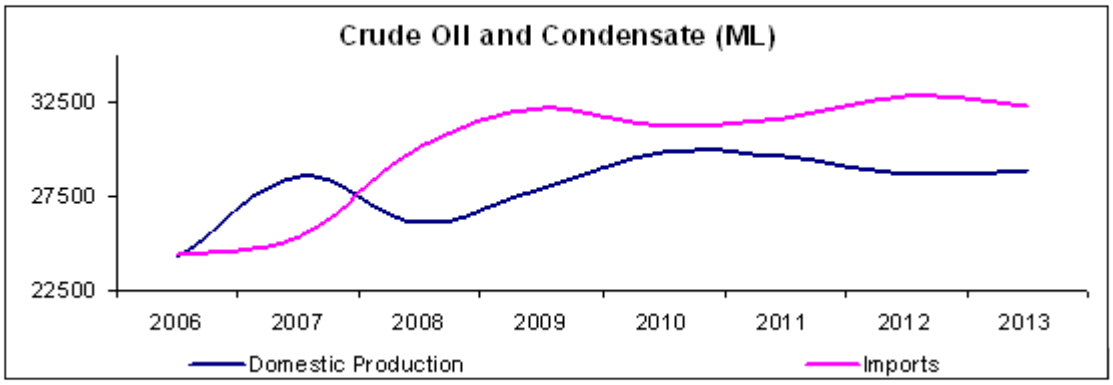
3. Australian Energy Situation and Outlook

a. Liquid Energy Outlook

According to ABARE, demand for petroleum products is projected to increase at around 1.5 percent per year out to 2014. This figure has been revised downwards from two percent previously projected by ABARE. This revision takes into consideration the recent global financial crisis and its impact on economic growth over the period.

However, production of liquid energy (as crude oil and condensate) is forecast to peak by the end of 2012 and any increase in consumption from this point in time will likely need to be met by increased imports.

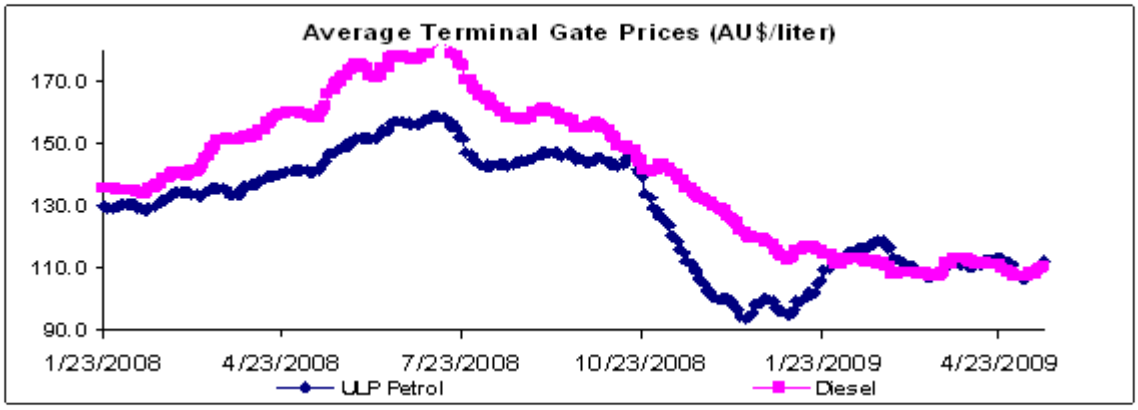
Post anticipates that as the local production shortfall begins to accelerate post 2012, domestic production of biofuel as an "import replacement" will begin to grow in significance.



b. Fuel Prices

Prices for transport fuel (both petrol and diesel) have decreased significantly since the peak of 2008. Furthermore, in 2009 the price of diesel fell below the price of petrol for the first time since the beginning of 2007.

Post anticipates that the recent fall in the retail price of transport fuel will likely offset, at least partially, the benefit gained from the fall in cost of feedstocks such as grain.



Author Defined:

Recent Reports from FAS/Canberra

The reports listed below can all be downloaded from the FAS website at: http://www.fas.usda.gov/scriptsw/AttacheRep/default.asp.

Report Number	Title of Report	Date
AS9020	Dairy & Products Semi-Annual	05/15/09

AS9018	Cotton Annual	04/28/09
AS9016	Sugar Annual	04/02/09
AS9015	Grain and Feed Annual 2009	03/20/09
AS9014	Stone Fruit Annual 2009	03/13/09
AS9012	Agricultural Economy and Policy Report	03/12/09
AS9010	Livestock Semi-Annual	03/06/09
AS9009	Government Announces A$32m Research into Soil Carbon & Emissions	03/06/09
AS9008	Wine Annual 2009	03/05/09
AS9007	New Import Conditions for Chicken Meat Finalized	03/05/09